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PATENT SPECIFICATION

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COMPLETE SPECIFICATION

Improvements in or relating to Cosmetic Preparations and the like and Processes for their Production

I, WALO NICOLAUS GERBER, of 55, Sihlquai, Zürich, Switzerland, a Swiss Citizen, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

My invention relates to cosmetic preparations of all kinds, such as liquid tonics for the face and the hair, skin creams, preparations to be added to the bath in the manner of bath salts, and the like.

It is an object of my invention to provide a preparation of the kind described whose action is more effective, and lasts longer, than that of similar preparations as used at present.

To this end, I use as a cosmetic preparation, or as part of such preparation, a solution of animal, and preferably cow's milk which has been skimmed, dried, preferably by the spraying process, and dissolved in a liquid.

The science of cosmetics has for a long time sought for a solution of the problem of tightening the human skin after it has become rough or wrinkled by age, or by climatic influence, but so far a satisfactory solution has not been found since the preparations available either do not produce the desired effect at all, or, if they do, the result achieved is of short duration only.

On the other hand, the preparation according to my invention is adapted to the structure of the human skin in such manner as to make it tight and smooth for a long time. My preparation is readily absorbed by the skin but is without the undesirable properties of substances such as fat.

A liquid face tonic is obtained by dissolving the dried milk in water. The milk may be in granular, preferably

pulverulent, condition, or a concentrated solution of the milk is prepared, and diluted with water.

Any suitable auxiliary substances may be added to the granular or powdered milk, or to the preparation of which the dissolved milk is a constituent.

For instance, a preserving agent can be added. Esters of paraoxybenzoic acid preserve pulverized milk for a practically infinite period. The esters also act as disinfectants in the finished preparation. A similar action is obtained by adding weak acids, such as boric or salicylic acid, to the powdered milk. Additions of this kind not only preserve the dried milk but also enhance the favourable action of the tonic on the skin.

The action of the tonic is further improved by adding substances such as enzymes or enzyme preparations, to the dried milk which change the albumen constituents of the milk into a lower molecular condition, and so render them more readily resorbable. Particularly suitable enzymes are pepsine and the albumen-digesting enzyme of droseraceae, for instance drosera rotundifolia. But any other enzymes may be used which attack albumen. The action of the enzyme is improved by adding balancing substances to the dried milk, for instance alkali salts of weak acids, so that when the milk is dissolved in water, it undergoes a concentration of hydrogen ions which is favourable for the action of the enzyme.

Nourishing agents such as lecithine, agents which imitate the action of sea water, such as bromium and iodates, menthol which is very refreshing, substances producing carbon dioxide, or oxygen, aromatic substances such as pine needle extract, and the like, can also be added.

[Price 1/-]

As mentioned, all the said auxiliary substances—and many others not referred to which may be found suitable—can be added either to the preparation, or to the granular or powdered dried milk. While the milk is dry, the substance, or substances, is durable and does not exert any influence on the albumen in the milk, but when the milk is dissolved, for instance, in water, it becomes active and attains its maximum effect as the tonic is warmed by contact with the human body. Therefore, it is recommended to dissolve the milk in warm water.

In making a preparation, the amount of dried milk which is added to the water should be such that the tonic assumes a slightly milky appearance which, if desired, is improved by a suitable colouring agent.

It has been found that if the skin is washed with such a preparation it becomes tighter and smoother, and the reason for this is that the preparation is readily absorbed by the skin, and that on account of the considerable reduction of the surface tension of the water—as is readily ascertained with a stalagmometer—the preparation penetrates into the capillary cavities of the skin more easily than plain water, and so, by filling them, becomes active on a larger area of the skin.

It has also been found that the tonic has a surprisingly great cleansing and, at the same time, fat-removing, influence on the top layers of the skin, and so it is particularly suitable for fatty skins. This is also due to the aforesaid penetration which enables the tonic, to a greater extent than plain water, to reduce to suspensions or emulsions the particles of dirt and/or fat which are in the pores of the skin.

On account of its ready penetration, dried milk dissolved in a liquid is particularly suitable as a constituent of skin cream. For making such cream, stearine is saponified not with dilute potash but with a mixture of concentrated caustic potash, and a watery solution of dried milk. This unguent is rendered ductile by further treatment and preserving agents, perfumes, and the like, are added to the cream thus obtained, as desired. The cream is absorbed by the skin with surprising rapidity and the skin immediately becomes tight and remains so for a long time. Besides, fat is removed to a great extent, and shiny skin becomes mat. To prevent skin which is poor in fat from becoming brittle by treatment with my cream, I may add wax, spermacetite, paraffin oil, and the like. Such substances are preferably added after saponification.

The ready resorption of the dried-milk solution by the skin is important for creams to be used as so-called face masks. Such a mask is obtained by adding to a cream made as described, powdered dried milk at the rate of, say, 20 per cent. of the cream's weight. The unguent portion of the cream is resorbed by the skin, and the powder which has been added makes up a compact and rapidly drying coat on the skin. The action is highly astringent, and can be varied by varying the composition of the cream, or the thickness of the layer on the skin. Another advantage of my mask over existing ones is that it becomes impermeable to air after it has become dry.

My preparation conserves its favourable action if the milk is dissolved in alcohol instead of water, as described. Therefore, it can also be used for face tonics, hair tonics, and the like, which are prepared with alcohol.

The intense cleansing action of my preparation makes it very suitable as an addition to the bath. Even very hard water, such as found in mountain regions, becomes quite soft by adding the preparation and has a corresponding touch. It is particularly suitable for people with a sensitive skin which is irritated by soap. This may produce eczema. To such persons, and to those who have already developed eczema, the action of the bath is very mild and makes the skin tight and elastic, without clogging its pores, as does bran or the like.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A cosmetic preparation consisting of dried animal skim milk, to be used if desired as an addition, dissolved in aqueous and/or alcoholic liquids, and to which, if desired, preserving agents and/or perfumes which are harmless to the skin are added before or after the solution.

2. A bath preparation consisting of dried animal skim milk to which a preserving agent or agents harmless to the skin is or are added, together with, if desired, skin nutrients and/or perfumes.

3. Process for the production of a skin salve with the use of a preparation according to Claim 1 wherein the dried skim milk is added in a dissolved form to the salve base.

4. Process according to Claim 3 wherein the aqueous solution is saponified with stearine in combination with concentrated caustic potash solution, whereupon the mass is treated further in the usual way.

5. Process for the production of a paste applicable as a face mask characterised by an admixture, preferably amounting to 20%, of powdered skim milk to the salve prepared according to Claim 3 or 4.

6. Hair tonic characterised by the addition of a preparation according to Claim 1.

7. A bath preparation according to Claim 2 characterised by an addition of albumen-demolishing enzyme preparations, if desired with the addition of buffer substances which, after the solution of the preparation in water, produce a concentration of hydrogen ions which

corresponds as much as possible to the optimum for the action of the enzyme which is used.

8. A bath preparation according to Claim 7 characterised by the use of preserving and disinfecting buffer substances which are harmless to the skin.

9. The herein described processes for the preparation of cosmetic preparations.

10. A cosmetic preparation when prepared substantially as described herein.

Dated this 19th day of April, 1937.

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